CLAIMS

What is claimed is:

1. A device comprising:

multiple ejection chambers positioned in a print head, individual ejection chambers comprising an ejection element, the print head defining a fluid-feed path configured to supply fluid to the ejection chambers for ejection from the print head;

a filter extending generally across the fluid-feed path; and,

a controller configured to cause ejection elements to be energized sufficiently to cause fluid to be ejected from one or more of the ejection chambers in a pattern designed to move a bubble to a region where the bubble can pass through the filter.

2. The device of claim 1, wherein the filter comprises a generally planar surface that extends generally transverse the fluid-feed path.

3. The device of claim 1, wherein the multiple ejection chambers are arranged in a generally linear array which lies generally parallel to a long axis of a fluid-feed slot defining a portion of the fluid-feed path, and wherein the controller is configured to cause fluid ejection in a pattern comprising a sequential pattern involving ejecting fluid from at least two adjacent ejection chambers.

4. The device of claim 1, wherein the multiple ejection chambers are arranged in pairs with a member of each pair located on opposing sides of the fluid-feed slot along an axis generally orthogonal to a long axis of the fluid-feed slot, and wherein the controller is configured to sequentially eject fluid from adjacent pairs to move the bubble from a first end of the slot toward a second generally opposing end of the slot.

5. The device of claim 1, wherein the multiple ejection chambers are arranged in pairs with a member of each pair located on opposing sides of a fluid-feed slot which defines a portion of the fluid-feed path, and wherein the controller is configured to sequentially eject fluid from adjacent pairs to move the bubble from at least one of a first and a second end of the fluid-feed slot toward the other of the first and second end of the fluid-feed slot.

6. The device of claim 1, wherein the filter comprises a photo-imagable polymer layer having apertures patterned therein.

7. The device of claim 1, wherein the filter comprises a layer having apertures patterned therein.

8. The device of claim 7, wherein the apertures are generally uniform in size.

9. The device of claim 7, wherein the layer is positioned between a silicon substrate through which the feed path passes and the multiple ejection chambers.

10. The device of claim 7, wherein individual ejection chambers comprise a nozzle and wherein a nozzle bore dimension taken transverse to the fluid-feed path is greater than a dimension of an individual aperture taken transverse the fluid-feed path.

11. The device of claim 7, wherein the apertures are generally uniform in shape.

12. The device of claim 7, wherein the apertures comprise multiple apertures of a first size and at least one second larger size aperture.

13. The device of claim 12, wherein the region is proximate to one of the second larger size apertures.

14. The device of claim 12, wherein the at least one second larger size aperture is generally diamond shaped when viewed transverse to the fluid-feed path.

15. The device of claim 12, wherein individual apertures comprising the multiple apertures of the first size are generally circular when viewed

transverse to the fluid-feed path.

16. The device of claim 12, wherein the at least one second larger size aperture is centrally located on the layer.

17. A system comprising:

a fluid-feed channel configured to supply fluid to a plurality of ejection chambers; and,

a processor configured to cause fluid to be ejected from one or more of the ejection chambers in a contaminant moving pattern that creates fluid flow designed to move a contaminant contained in the fluid-feed channel in a desired direction.

18. The system of claim 17, wherein the contaminant moving pattern creates fluid flow from a first end of the fluid-feed channel toward a generally opposing second end of the fluid-feed channel.

19. The system of claim 17, wherein the contaminant moving pattern creates fluid flow from a first end of the fluid-feed channel and a generally opposing second end of the fluid-feed channel toward a region centrally located between the first end and the second end.

20. The system of claim 17, wherein the contaminant comprises a bubble.

21. The system of claim 17, wherein the contaminant comprises a particle.

22. The system of claim 17, wherein the contaminant comprises one or more bubbles and wherein the processor is configured to move the bubbles toward a structure configured to evacuate bubbles from the fluid-feed channel.

23. The system of claim 17, wherein the processor and the fluid-feed channel are incorporated in a printing device.

24. The system of claim 17, wherein the fluid-feed channel is incorporated on a printing device and the processor is incorporated in a computing device coupled to the printing device.

25. A micro electro mechanical systems device comprising:

means for supplying fluid along a fluid-feed path to a plurality of ejection chambers, individual ejection chambers comprising an energizing element configured to eject fluid from an associated individual ejection chamber; and,

means for moving a contaminant in a desired direction along the fluid-feed path by sequentially ejecting fluid from at least some of the ejection chambers in a pattern designed to create fluid flow in the fluid-feed path to move the contaminant.

26. A printing device comprising:

a print head comprising multiple ejection chambers and a fluid-feed channel configured to supply fluid to the ejection chambers; and,

a controller configured to cause fluid ejection from individual ejection chambers in a pattern designed to move a bubble in a desired direction within the fluid-feed channel.

27. The printing device of claim 26, wherein the ejection chambers are arranged in a generally linear array extending along a long axis of the fluid-feed channel.

28. The printing device of claim 27, wherein the controller is configured to eject fluid from individual ejection chambers starting at a first end of the array and progressing to a second generally opposing end of the array.

29. The printing device of claim 27, wherein the controller is configured to eject fluid from individual ejection chambers starting at a first end of the array and a second generally opposing end of the array and progressing toward a generally central region of the array.

30. A method comprising:

ejecting fluid from multiple ejection chambers of a printing device in a pattern designed primarily to create fluid flow to move a contaminant present in fluid contained in a fluid-feed channel configured to supply fluid to the multiple ejection chambers; and,

responsive to said ejecting, moving fluid in the fluid-feed channel sufficiently to move a contaminant in a desired direction within the fluid-feed channel.

31. The method of claim 30, wherein said act of ejecting comprises ejecting fluid from adjacently positioned ejection chambers.

32. The method of claim 30, wherein said act of ejecting comprises ejecting fluid from pairs of ejection chambers where the ejection chambers comprising each pair are positioned on opposing sides of a long axis of the fluid-feed channel.

33. A method comprising:

positioning a filter relative to a fluid supply path of a micro electro mechanical systems device so that fluid passes through the filter before reaching one or more ejection chambers of the micro electro mechanical systems device; and,

configuring a processor to cause fluid to be ejected from individual ejection chambers in a pattern intended to create fluid flow sufficient to move a contaminant in a direction generally parallel to the filter to a location designed to handle contaminants.

34. The method of claim 33, wherein said act of configuring moves the contaminant comprising a bubble to the location to allow the bubble to pass

through the filter.

35. One or more computer-readable media having computer-readable instructions thereon which, when executed by a device, cause the device to:

selectively energize a first ejection element to cause ejection of fluid from a first ejection chamber; and,

selectively energize at least a second ejection element to cause ejection of fluid from at least a second ejection chamber, wherein said ejection from the first ejection chamber and ejection from the second ejection chamber cooperatively cause fluid flow within a fluid-feed channel supplying fluid to the chambers sufficient to move a contaminant located in the fluid-feed channel.